DRAFT RULE 319
FOR THE 12/07/00 PUBLIC WORKSHOP
Contact: Patty Nelson, phone (602) 506-6709, Fax (602) 506-6179
Email: pnelson@mail.maricopa.gov
Comments due on 12/22/00

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 319
GINNING OPERATIONS

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MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 319
GINNING OPERATIONS

SECTION 100 - GENERAL

101 PURPOSE: To limit the discharge of particulate matter from ginning operations by establishing emission and control standards.

102 APPLICABILITY: This rule applies to all new, existing and modified ginning operations.

SECTION 200 - DEFINITIONS: For the purposes of this rule the following definitions shall apply:

201 EMISSION CONTROL SYSTEM (ECS) - A system for reducing emissions of particulates, consisting of both collection and control devices which are approved in writing by the Control Officer and are designed and operated in accordance with good engineering practices.

202 EMISSIONS UNIT - Any part of a stationary source which emits or would have the potential to emit any regulated air pollutant. Each piece of equipment shall be considered a single emissions unit for the purpose of this rule.

203 GINNING OPERATION - Any facility or plant which removes seed, lint, and/or trash from raw cotton and/or bales of lint cotton.

204 HIGH EFFICIENCY CYCLONE - Any cyclone type collector of the 2D-2D or 1D-3D configuration, designations referring to the ratio of cylinder length to cone length, where D is the diameter of the cylinder portion. A 2D-2D cyclone would exhibit a cylinder length of 2XD and a cone length of 2XD. A 1D-3D cyclone would exhibit a cylinder length of 1xD and a cone length of 3xD.

205 ~~LOW PRESSURE~~ LINT HANDLING SYSTEMS EXHAUST - The exhaust air systems at a cotton gin which handl~~ies~~ng air ~~systems located at a~~ from the cotton

~~gin which are not defined as " low pressure exhausts ".~~ lint handling system, battery condenser and mote handling systems.

206 ~~**HIGH PRESSURE**~~**SEED COTTON HANDLING AND TRASH SYSTEMS EXHAUST -** The exhaust ~~air~~ cotton handling air systems located at a cotton gin which are not defined as "lint handling system exhausts." ~~at a cotton gin which handles air from the cotton lint handling system, battery condenser and mote handling systems~~

SECTION 300 - STANDARDS

301 LIMITATIONS - OPACITY/GENERAL: No person shall discharge into the ambient air from any ginning operation any air contaminant, other than uncombined water, in excess of 20 percent opacity.

302 CONTROLS REQUIRED: An owner or operator shall control the following :

302.1 Effective April 7, 2001 ~~(2 years from the date of adoption),~~ each unit that is fed by seed-cotton unloading, first seed-cotton cleaning and master trash systems shall be controlled by an ECS that includes a 1D-3D cyclone or equivalent device with at least a 95% efficiency.

302.2 No later than April 7, 2004 ~~(5 years from the date of adoption),~~ the remaining ~~high pressure~~ seed cotton handling and trash ~~exhaust~~ emission units shall be controlled by an ECS that includes a 1D-3D cyclone or equivalent device with at least a 95% efficiency.

302.3 No later than April 7, 2004 ~~(5 years from the date of adoption),~~ all lint handling ~~low pressure~~ exhaust emissions units shall be controlled by an ECS that includes at least a 2D-2D cyclone or equivalent device with at least a 90% efficiency.

303 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT

303.1 OPERATION AND MAINTENANCE (O&M) PLAN REQUIREMENTS FOR ECS:

a. An owner or operator shall provide and maintain (an) O&M Plan (s) for any ECS, any other emission processing equipment, and any ECS

monitoring devices that are used pursuant to this rule or to an air pollution control permit.

b. The owner or operator shall submit to the Control Officer for approval the O&M Plans of each ECS and each ECS monitoring device that is used pursuant to this rule.

303.2 PROVIDING AND MAINTAINING ECS MONITORING DEVICES: An owner or operator operating an ECS pursuant to this rule shall install, maintain and calibrate monitoring devices described in the O&M Plan. The monitoring devices shall measure pressures, rates of flow and/or other operating conditions necessary to determine if the control devices are functioning properly.

303.3 O&M PLAN RESPONSIBILITY: An owner or operator of a facility that is required to have an O&M Plan pursuant to subsection 303.1 must fully comply with all O&M Plans that the owner or operator has submitted for approval, but which have not yet been approved, unless notified otherwise by the Control Officer in writing.

304 TRASH HOPPER DUMPING: Any owner or operator shall dump trash into a hopper that shall utilize an enclosure with a minimum of two sides in order to minimize fugitive emissions. The sides of the enclosure shall prevent wind dispersion by ensuring that the height of the enclosure extends above the opening of the dumping device. If an auger is used to transport the trash into a hopper, the open end of the auger or auger sleeve shall be below the top of the enclosure.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS

401 O&M PLAN COMPLIANCE SCHEDULE: Any owner or operator, employing an ECS device as of ~~(date of adoption),~~ April 4,1999 to meet the requirements of this rule, shall file by ~~(180 days after adoption)~~ October 4, 1999 an O&M Plan with the Control Officer in accordance with subsection 501.2 of this rule.

402 CONTROL EQUIPMENT COMPLIANCE SCHEDULE: Any owner or operator that ~~does not comply~~ is not already in compliance with Section 302 or 304 of this rule as of April 4,1999 ~~(date of adoption)~~ shall submit to the Control Officer a compliance plan to achieve compliance with this rule no later than ~~(~~180 days after the initial baseline testing ~~adoption)~~. The owner or operator shall specify dates for completing increments of progress, which at a minimum shall include a design scheme, actual date that the equipment was ordered or purchased, anticipated delivery date,

installation schedule, anticipated start-up date and testing dates in the plan. The Control Officer may require a person submitting a compliance plan to submit subsequent reports on progress in achieving compliance. No later than 180 days after the control equipment is considered to be in compliance with this rule, the O&M Plan, as stated in Section 303 of this rule, shall be filed by the owner or operator with the Control Officer.

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: The owner or operator subject to this rule shall comply with the following requirements. These records shall be kept for a period of five (5) years.

501.1 Process Records: For each day of operation, the owner or operator shall record the total hours during which a ginning operation was conducted, the number of bales of cotton produced and the total weight of all bales produced.

501. 2 ECS O&M Plan Records: An owner or operator shall maintain a record of the periods of time that an approved ECS is used to comply with this rule. Key system parameters such as flow rates, pressure drops and other conditions necessary to determine if the control equipment is functioning properly shall be recorded in accordance with the approved O&M Plan. The records shall account for any periods when the control system was not operating. The owner or operator shall also maintain records of all maintenance performed according to the O&M Plan. The results of the visual inspection, and any corrective action taken if necessary, shall also be recorded.

502 FLOW MAINTENANCE EVALUATIONS: The owner or operator shall conduct maintenance evaluations of the control device to ensure continuing proper flow through the collection system. This evaluation shall consist of the following :

502.1 An initial baseline study of the entire dust collection system to determine if the systemt is properly balanced ~~of volumetric flow~~ to ensure maximum particulate matter collection efficiency. This evaluation shall be made prior to ~~October 1999,~~ the start of the cotton ginning season regardless of the actual ginning date, following the adoption of this rule. If this initial baseline study shows that the system is not properly balanced then a subsequent baseline study shall be made after the system has been modified. This ~~e~~ baseline study shall be conducted using EPA Method 2, as incorporated by

reference in subsection 503.1(b). During the baseline study ~~evaluation~~, the ~~volumetric~~ inlet velocity, fan static pressure ~~flow~~ downstream of each fan and the cyclone pressure drop ~~–~~at local conditions shall also be determined and recorded for reference. The baseline study shall be performed under unloaded conditions. The cyclones shall be operated at +/- 20% of the design~~ed~~ gas ~~flow~~ velocity at local conditions, which is 2,700 to 3,600 ft./min. for 2D-2D cyclones and 2,800 to 3,600 ft./min for 1D-3D cyclones, ~~. The average pressure drop across each cyclone or set of cyclones or static pressure measured down flow of each fan will be established and recorded at local conditions for later reference.~~

502.2 ~~Monthly~~ Weekly checks referenced to the ~~initial~~ baseline parameters shall be made to ensure that the control system is operating within +/- 20% of the design~~ed~~ inlet velocity range at local conditions, ~~gas flow at local conditions, as determined in the initial baseline study.~~ These checks shall be made by ~~direct measurements~~ static pressure measurements using a magnahelic, manometer, velometer or other equivalent device approved by the Control Officer at the same sample ports that were used in the baseline study. ~~using one of the following methods :~~

~~**a.** Pressure drops across each cyclone using an anemometer, magnahelic device, manometer, velometer or equivalent device.~~

~~**b.** Static pressure measurements at each fan using a magnahelic device, manometer, or velometer or referenced back to the baseline which was made using an approved method of measurement.~~

~~**c.** Flow measurements at the approved location, defined in accordance with the O&M Plan, measured with a calibrated anemometer, manometer, velometer or equivalent device.~~

502.3 Visual checks of the ECS for leaks, holes and excessive visible emissions shall be conducted and recorded during each day of operation.

503 COMPLIANCE DETERMINATION: The test methods for those subparts of 40 CFR Part 60, Appendix A, adopted as of July 1, ~~1998~~ 2000, as listed below, are adopted by reference as indicated. This adoption by reference includes no future editions or amendments. Copies of test methods referenced in subsection 503.1 are available at the Maricopa County Environmental Services Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.

503.1 TEST METHODS:

a. OPACITY DETERMINATION: The opacity determinations shall be conducted in accordance with the techniques specified in EPA Reference Method 9, 40 CFR Part 60, Appendix A.

b. VELOCITY AND VOLUMETRIC FLOW RATE: The velocity and volumetric flow rate shall be determined according to EPA Reference Method 2, 40 CFR Part 60, Appendix A.

c. PARTICULATE EMISSIONS: The amount of particulate matter shall be determined according to EPA Reference Method 5, 40 CFR Part 60, Appendix A.